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ABSTRACT

A study examined children's comprehension of and preferences for basal reader stories with differing levels of coherence. The subjects were 58 second grade students who each read orally three stories judged to differ substantially on the number of incoherences in the text. Incoherences were defined as confusing referents, unclear relationships between events, and words or phrases likely to be beyond the children's background knowledge. Analyses of measures of reading accuracy, text-based comprehension, summaries, and explanations showed that the children consistently performed more successfully on the story with the fewest incoherences. They also chose that story as the one they preferred to read, although more than half changed their minds on the two occasions when they were asked their preferences. (Extensive tables of data are appended.) (FL)

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CENTER FOR THE STUDY OF READING

Technical Report No. 378

CHILDREN'S COMPREHENSION OF, REACTIONS TO, AND PREFERENCES FOR BASAL READER STORIES OF VARYING COMPREHENSIBILITY

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Abstract

This paper reports the findings from a pilot study and a large study with end-of-first and second grade children. Each child individually read orally three stories judged to differ substantially on the number of incoherences found in the text; incoherences are defined as confusing referents, unclear relationships between events, and words or phrases likely to be beyond the children's background knowledges. Measures of reading accuracy, text-based comprehension, summaries, and explanations of incoherences showed that the children consistently performed most successfully on the most comprehensible story. The children also chose the most comprehensible story as the one they preferred, though over half of the children changed their minds about their choice on the two occasions when they were asked which story they liked best.

Children's Comprehension of, Reactions to, and Preferences for Basal Reader Stories of Varying Comprehensibility

Recent research by Meyer, Greer, and Crummey (1986) reported differences for decoding and comprehension instruction as well as text differences in several first grade basal reading series. A particularly surprising finding in that study was that the "comprehensibility" of stories appearing in the first grade Ginn (Clymer, Wong, & Benedict, 1976), Harcourt, Brace, Jovanovich (Early, Cooper, & Santeusanion, 1983), Houghton Mifflin (Durr, LePere, Alsin, Bunyon, & Shaw, 1979), and Science Research Associates (Engelmann & Bruner, 1983) basal reading programs differed substantially. In analyzing those stories, comprehensibility was defined in terms of the clarity of apparent assumptions about children's abilities to explain the relationship between nouns and their referents, background knowledge, clear relationships between story events, and the inclusion of only relevant information. Therefore, the most comprehensible stories were those with the fewest examples of these four types of problems, hereafter referred to as incoherences. Meyer and her colleagues determined these differences in comprehensibility for basal reading stories by applying procedures developed by Beck, McKeown, Omanson, and Pople (1984) for an experimental study that demonstrated that

students better comprehend texts with fewer incoherences. In their work, Beck et al. (1984) found significant differences between students' comprehension of a story before and after a story text was modified to make it more comprehensible.

We were interested in trying out stories of varying coherence with students. Our primary questions were: First, how do incoherences in stories affect students' abilities to understand text-explicit information? (Text-explicit information appears "right there" in the text.) Second, can students explain incoherences in stories and third, does the density of text incoherences affect students' preferences for stories?

We found no previous research to address these questions directly. Studies by Green and Laff (1980), Green (1984), and Green and Olsen (personal communication) found that young children attend to various story characteristics, recognize authorship if they are presented with examples of different literary styles, and prefer original texts to stories adapted for basal readers both when read to and when they read portions of an original and an adapted text and then chose the one they wanted to hear more of.

The major difference between the Green et al. work and this study is that we wanted to determine if and how students' comprehension and choices are affected when they read three stories of differing comprehensibility. We also wanted to measure students' abilities to explain incoherences, summarize,

and answer questions about the story. In addition, we wanted to count the number of words each child misidentified while reading orally.

Story Analysis

Our analysis of first grade basal reading stories progressed in two stages. First, we matched three types of stories from four publishers in order to see if the number of incoherences in these somewhat different stories varied. [Personification stories which had animals as the speaking, main characters; dilemmas which had a main character who sought to resolve a quandary, and expository selections.] We chose only stories from the second first grade readers from each publisher because these books had the longest stories. The procedures and results of this first step are reported in depth elsewhere (see Meyer, Greer, & Crummey, 1986), so only a brief account of these findings follows. This work is limited to stories from the Houghton Mifflin, Harcourt, Brace, Jovanovich, and Ginn programs since they represent rather traditional basal reading programs that vary in their emphasis on decoding and comprehension (the Science Research Associates program was not analyzed). We identified personification, dilemmas, and expository stories of roughly the same length by the three publishers and analyzed them to determine the number and type of comprehensibility problems in each text. These stories constitute the "matched" stories in Table 1. The between-publisher differences for these stories was

so striking, that we next analyzed every third story for each publisher in order to compare findings from the matched stories to a larger and more varied sample. These findings for "unmatched" stories also appear in Table 1.

Insert Table 1 about here.

We calculated words per incoherence by dividing the number of words in the story by the number of incoherences. While incoherences do not appear at regular intervals, the average number of words/incoherence does provide some measure of the density of incoherences. Harcourt, Brace, Jovanovich stories average the most incoherences, Ginn stories vary more, but run a fairly close second to HBJ, while Houghton Mifflin has only about 15% the number of incoherences found in HBJ and Ginn. In all cases, words per incoherence were larger in the unmatched stories. Pages representative of the complete text, from three stories with quite different densities of incoherences follow.

Arnold Lobel's "Cookies" is reprinted in its entirety in the Houghton Mifflin first grade reader. We tallied only 4 incoherences in this entire story. When analyzing these stories we often felt that we stretched the definitions for the incoherence categories to include aspects of the story that could be readily defended as humorous. Often, humor came from an understated relationship between events. This well-known,

popular children's story presents coherently the antics of Frog and Toad, two characters who share the love of cookies and a lack of willpower to stop eating cookies. They develop increasingly complicated plans to stop themselves from eating cookies (but they continue to stuff themselves) until they finally give away all of their remaining cookies. The final page of "Cookies" illustrates the skillful way in which Lobel moves this story along. The last line was coded as an, "unclear relationship between events," though it is no doubt intended to be humorous and the whole story builds to this implication. Toad does not say explicitly why Frog can keep all the willpower while he (Toad) goes home to bake a cake. It is possible that first graders may not understand the relationship between Toad's handing over their collective willpower to Frog, and Toad's departure to bake a cake.

Insert Figure 1 about here.

"Sights of the City" (Ginn, 1976) had an average number of incoherences, 18 in 511 words. Whereas "Cookies" averaged about 100 words between incoherences, "Sights" averaged only 28 words between incoherences. We coded three incoherences on the first page of this story. First, is the word "sights" familiar to most first graders? Second, who is "the tall man?" How are children to figure out who he is? How are they to know the tall man's

job? The repetition of the word "sights" without a definition is a further problem that resulted in the third incoherence on the first page.

Insert Figure 2 about here.

"Animal Art Show" (Harcourt, Brace, Jovanovich) had 33 incoherences in 462 words. Therefore, the incoherences averaged one every 14 words. A single page from "Animal Art Show" illustrates the density of the incoherences in this story.

Insert Figure 3 about here.

It is unclear what Fox is talking about when he refers to "this." It is also unclear why after Sheep tells Fox to "read it . . .," Fox "said" what was on the sign. Finally, will most first graders have adequate background knowledge to understand what a "work of art" is?

One rather striking difference between these stories is not only the relative frequency of incoherences, but also the position of incoherences. One might speculate that incoherences early in a story could be confusing. Once confused, might children remain that way throughout the story? In fact, many students in our study assumed "Animal Art Show" was a television

show or a play. Thus, they might have activated the wrong schema at the beginning and kept it for the entire story.

The Pilot Study

Procedures

To address these issues, first we completed a pilot study with eight students, six first graders and two second graders. Each student read "Cookies," "Sights of the City," and "Animal Art Show." The stories were about the same length. "Cookies" and "Animal Art Show" are personifications while "Sights of the City" is a third person narrative. "Cookies" is a popular reprinted tradebook. The other two stories are written-for-basal-reading program stories. Table 2 shows the length, number of incoherences, and average number of words/incoherence for each story.

Insert Table 2 about here.

Five experimenters worked individually from scripts with students to complete the study. Students were given the stories in randomized order and directed to read out loud. Experimenters told them each word they misidentified or could not identify and then coded every miscue. At the end of each page we asked three questions.

1. Was anything on this page hard to understand?
2. Why or why not?
3. What was this page about?

These questions were designed to approximate traditional end-of-page questioning during round robin reading. Our goal was to determine if students had identified incoherences and could then explain why or why not the page was hard to understand. We asked the third question to check students' general comprehension of the story segment and summarizing ability.

To check for other aspects of comprehension, we asked three types of additional questions. First, we developed questions for every fourth incoherence that had students "explain" the incoherence. Second, we asked the final five text-explicit (Pearson & Johnson, 1978) questions from the Teachers' Guides. By definition, each of these questions was answered in the text. Finally, we asked the students how much they liked each story and what they learned. These results appear in Tables 3 and 4.

Insert Tables 3 and 4 about here.

Results

Comprehensibility. There was a tendency for students to report the least comprehensible story as harder to understand. But, with all three stories, students explained their difficulty or ease of reading in terms of their ability to decode. Two students explained their trouble understanding "Cookies" in this way. "If I can read it" (and they seemed to equate reading with identifying the words correctly), "I can understand it."

Summarization. We scored the students' summaries by following Brown and Day's (1983) rules, checking for unimportant, trivial, or redundant information; categorization of information presented in lists; and use of a topic sentence. Overall, summarization ability was quite low, but students gave the best summaries for "Cookies" and progressively inadequate summaries for "Sights" and "Animal Art Show." The two second graders summarized "Animal Art Show" least well.

Comprehension. Students showed rather consistent patterns for comprehending incoherences and for answering text-explicit questions. Furthermore, the differences between the performance of first and second graders was consistent. Both classes of students answered more text-explicit questions than they identified incoherences. And, both types of comprehension scores dropped consistently from "Cookies" to "Sights of the City," and finally to "Animal Art Show."

Sentiment and preference. Surprisingly, more students responded that they liked "Animal Art Show" a whole lot, than liked the other two stories. When then asked what they learned from each story, they gave a variety of responses ranging from "Nothing," to listing the new words they learned, or stating a sort of moral such as, "Not to eat too much things or you'll get real sick."

Because of the somewhat surprising answers to the questions about how much the children liked each story we added two more

steps to our procedures. After each student had completed all three stories, we individually presented each child with the three books open to the appropriate story's first page. We reminded each student with whom they had read each story and then asked them to pick the story they liked best. These results appear in Table 5.

Insert Table 5 about here.

Several students either had trouble choosing one story or told an experimenter casually that they really liked all of the stories. For these reasons we returned once more to ask the students to choose again the story they liked best. Therefore, each child chose the story she or he preferred and explained why twice (except for Student 4 who was absent for this part of the study). Votes split evenly between "Cookies" and "Animal Art Show" as students chose their favorite. But, 3 of the 7 students present on both days changed their minds about their choice between Time 1 and Time 2.

The students' reasons for their choices ranged from answers fairly closely tied to story content (e.g., "Because they won a prize") or ease of reading (e.g., "It was a good story - easy to read") with support for their choices split fairly evenly (4 to 3) between the two categories.

Discussion

Comprehension. Subjects explained incoherences best in the most coherent story, "Cookies." Their ability to identify incoherences fell substantially and rather predictably in "Sights of the City," and even further in "Animal Art Show." This pattern suggests that the aspects of the stories that we judged to be difficult to understand may indeed have influenced students' understanding. The children's abilities to answer text-explicit questions changed less, however. The differences in these two types of student performance on comprehension tasks suggests that figuring out incoherences is a harder job than simply answering questions about information that was "right there" in the text.

The children were able to summarize far less than half the pages in "Cookies" and "Sights of the City," but they were even less able to summarize pages from "Animal Art Show." This overall low performance suggests that students of this age generally may have difficulty summarizing what they read. It is important to note, however, that the overall lowest summarization performance was on the most incoherent story.

Taken together, these measures of comprehension produce consistent (though somewhat limited) evidence that even at the first grade level, story comprehensibility may influence comprehension.

Attitudes About and Story Preference. After reviewing the subjects' responses to how much they liked each story, and realizing the split popularity of "Cookies" and "Animal Art Show," as well as the tendency of the children to change their minds about which story they liked best, one wonders how reliable self-report on this issue is from children this age. This concern is supported by information from casual conversations experimenters had with students while escorting them to and from their classrooms to the room where we conducted the experiment. Sometimes children spontaneously volunteered opinions about what they read, and, occasionally children mentioned how much they liked all of the stories. It seems fairly clear that these children had difficulty choosing the story they liked best and justifying their choices. Therefore, one wonders if we had returned to ask the same questions on a third day if we would have had even more children change their minds about the story they liked "best."

The conclusions from this pilot study are tentative at best, given the small number of subjects. Therefore, we conducted the study with a larger number of students in order to support or refute the findings from this pilot work. These procedures and results appear next.

The Second Grade Study

Procedures

We replaced "Sights of the City" with a story entitled, "The Beautiful Turtle," also from the Ginn end of first grade basal in order to increase the comparability of the stories. "The Beautiful Turtle" is a personification with 19 coded incoherences.

We worked with second graders about midway through the school year in order to have enough children to participate in the study. All but one second grade student from an elementary school participated in this study. This school has a fairly normal distribution of students at each grade as demonstrated by school-wide standardized test performances and teacher-reported placement of students in reading program basals. Fifty-eight of 64 students completed all phases of the study.

Eight researchers administered the three scripted stories in random order to all students. The scripts included a short statement for the beginning of the session and questions inserted into the story text. These procedures for story reading and questions matched those in the pilot study.

Results

Results are reported for fifty-eight subjects. Table 6 shows decoding errors, reports, and explanations for page difficulty or ease.

Insert Table 6 about here.

Decoding. Students made slightly more decoding errors on the story "Cookies." They misidentified or left out about six and a half words on the average while reading "Cookies." They made slightly fewer errors on "The Beautiful Turtle," and only about six errors on "Animal Art Show."

Was this page hard to understand? We asked this question after students read each page. Therefore, the number of instances after the number of pages in Table 6 reflects the number of pages in the story times 58 students. Students reported fewest of the "Cookies" pages hard to understand.

Why was this page hard to understand? There were only slight differences between stories as students explained why pages were hard to understand. On "The Beautiful Turtle" and "Cookies," more students explained pages as difficult to understand in terms other than decoding despite the greater actual number of decoding errors on "Cookies."

Why was this page not hard to understand? The stories were reported very similarly for pages easy to understand. When students said pages were easy to understand, they explained why in terms of decoding, by saying things like "I knew all the words," or in terms of comphrehension, "I understood it!" Sometimes students responded with a phrase or word from the page,

simply repeated it was easy, said "I don't know," or gave another response. The prevalence of these responses does not present a clear pattern except that the highest means for three of the six categories are for "Cookies" - these are answers cast in terms of comprehension, "I don't know," or "other."

What was this page about? Students' summaries were scored to give no, partial or full credit. Each student summary was compared to a model summary based on Brown and Day's rules with key words coded and agreed upon by the authors of this paper. We gave no credit for summarizing if students repeated the same response for each page, "Frog and Toad," for example, or "Cookies," or mentioned a word or phrase and little else from a page. Students received partial credit if they gave half or more of the key words from our model summaries in their summaries. Students received full credit if their summaries had all or all but one of the key words. The smallest percent of inadequate and the highest percentage of partial summaries were on "Cookies." The highest percentage of inadequate summaries was for "The Beautiful Turtle."

Identifying incoherences. Students were most successful at explaining incoherences in "The Beautiful Turtle." But, this category is difficult to interpret because of the variance in the number of incoherences per story. Therefore, the restricted range of items in this category for "Cookies," in particular, lowers the potential reliability of the results.

Text-explicit questions. Students answered the most text-explicit questions correctly for "Cookies." There is very little difference between student performance in these categories for "Animal Art Show" and "The Beautiful Turtle." Results for summaries, identification of incoherences, and percent of correct text-explicit questions appear in Table 7.

Insert Table 7 about here.

How much did you like this story? Table 8 shows that students reported fairly equal liking for the three stories.

Insert Table 8 about here.

What did you learn from this story? Students' responses to this question fell generally into four categories. The trend was for students to mention something from the story such as, "The turtle sang and the man danced." We coded all of these types of responses as story-related. Frequently, students responded, "Not to eat so many cookies, or you will get sick" (for "Cookies"), or "Don't try to be something you are not" (for "The Beautiful Turtle"). These responses, collectively, we referred to as generalizations or morals. A few students responded with statements like "Animals can't do art" (for "Animal Art Show"). These responses were coded as unacceptance of the

personification. And, of course there were a few responses that fit into none of these three categories. Those responses we collapsed as "other."

Which story did you like best? Given the decoding, comprehension, summary, and "learning" responses, we also wanted to know which of the three stories students liked best. These second graders responded much more certainly than the end-of-first grade students in the pilot group. They were much less hesitant. Students chose "Cookies" close to the same number of times at Time 1 and Time 2, though "Animal Art Show" seemed to gain substantially in popularity between those times. Well over half of these second graders (64%) changed their minds between the first and the second time they were asked which story they liked best. Increasingly, students gave story-related reasons to support their choices. Their personal identification reasons for choice were low, but stable. These results are summarized in Table 9.

Insert Table 9 about here.

Discussion

Comprehension. Students declared the fewest pages of "Cookies" hard to understand and the most pages of that same story easy to understand. They also most often explained their ability to understand "Cookies" in terms of being able to

comprehend the story. These measures of performance coupled with the lower percentage of inadequate summaries, the highest percentage of partial summaries, and second-ranked percentage of adequate summaries strongly suggests that the coherence, or comprehensibility, of the story "Cookies" facilitated these measures of comprehension. These patterns continue with answers to text explicit questions highest on "Cookies" as well. The low percentage of incoherences identified may be the result of there being only one incoherence in "Cookies" for the students to explain. Therefore, they got little practice on this type of comprehension task on this story.

Attitudes about and story preference. The percentage of children choosing "Cookies" was reassuring, as these responses again suggest that comprehensibility may influence children's story preferences even at the second grade level. These second graders varied their choices quickly and confidently and failed to discuss problems choosing one story spontaneously. We can only speculate as to why so many children changed their minds when asked twice to choose their favorite story and why the popularity of "Animal Art Show" doubled from Time 1 to Time 2. Do students identify increasingly with an action-packed story that has a fair amount of violence between characters?

Conclusions

Story Analysis

We began the story analyses as part of our work on first grade basal reading programs. We anticipated that we'd find differences in the length and themes of stories, but we expected the stories to be more alike than different. We were wrong. It came as a very pleasant surprise to find substantial variation in stories between publishers. In fact, Houghton Mifflin's progression from basal stories to reprinted works makes a great deal of intuitive sense. This publisher provides stories with a restricted vocabulary until students have had a fair amount of experience in reading. Then, Houghton Mifflin includes several very well written, yet easy-to-read tradebooks. Harcourt, Brace, Jovanovich, and Ginn do not follow such a pattern. Ginn's inclusion of trade books and folk tales early in their program no doubt forces a degree of adaptation that Houghton Mifflin avoids simply by incorporating original text at a later time in its series. These results are also encouraging because students demonstrate they comprehend information better if it is presented in a text that is easier to understand.

Student performance. Students had slightly more difficulty decoding "Cookies" as evidenced by the higher average number of decoding mistakes on this story. Despite their decoding errors, students reported fewest of the "Cookies" pages hard to understand. The favorite among the stories, "Cookies" also

scored highest with the summaries and answers to text-explicit questions. Taken together, students' comprehension as measured with summaries and questions favor the unadapted trade book, "Cookies."

Student preference and choice. These are difficult responses to interpret since students tended to report they liked all three stories either "A whole lot," or "A lot." Does this mean that second graders are not very discriminating about stories they read? Their responses to what they learned from the stories suggests that they recalled details from each story because they so frequently either gave a direct story-related or moral-like response to these questions.

Why did so many students change their minds when asked twice to choose one story? This is a perplexing question. The end-of-first graders in the pilot study seemed ever so much more hesitant about their choices when compared to the mid-year second graders. Yet well over half the second graders changed their minds. Despite these changes, "Cookies" was more consistently the children's choice than either "Animal Art Show," or "The Beautiful Turtle." But, "Animal Art Show" gained substantially in popularity from Time 1 to Time 2. Do these changes suggest that self-report is generally unreliable from children of this age? Does a story with a particularly action-oriented theme gain students' favor (thereby explaining the rise in popularity for "Animal Art Show") over time? Or, did these students believe

there was something wrong with their first choice? These questions deserve further research.

The high percentage of students who changed their minds between Time 1 and Time 2 may also suggest that we might have had similar changes of opinion within some or all of our other categories of self-report (Was this page hard to understand? Why, or why not? Did you like this story a whole lot . . .?). This mixture of data from student performance and self-report suggests a plethora of other questions.

The tendency for students to shift in explaining a page's difficulty from decoding to comprehension suggest that children may begin to conceptualize reading differently as they progress from first through second grade. These data suggest interesting further developmental research by supporting the need for accuracy and automaticity decoding before students naturally shift to attend to meaning. Text that makes sense may well affect students' efforts to extract meaning even when children are only beginning to read.

Representation of tradebooks and folktales in the three series. Our discovery of the full length reprinted tradebooks in the final Houghton Mifflin book caused us to question the variation in representation of tradebooks and folktales throughout lower elementary grades in these three basal programs. We were also curious about when each publisher began to use adapted and original texts. In other words, did one publisher

include adapted stories in its first first-grade basal, while another publisher used its own stories until it was possible to use original stories? Therefore, we went through each program to determine the number and type of selections in each as well as the percentage of reprinted and adapted selections. These results appear in Table 10 by publisher and book. Table 11 summarizes the differences between publishers.

Insert Tables 10 and 11 about here.

Houghton Mifflin presents a particularly interesting pattern. It includes no reprinted or adapted trade books or folktales until its fourth book. But, once Houghton Mifflin begins to include reprinted or adapted text, those stories equal or dominate in number the publisher's own stories in the amount of text they represent. No other publisher shows quite this pattern. Harcourt, Brace, Jovanovich introduces adapted text in its last two first grade books, while Ginn uses variable percentages of adapted trade books and folk tales from its first book on.

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Table 1

Words Per Incoherence

for Matched and Unmatched

Stories

Publisher	Matched Stories		Unmatched Stories	
	$\overline{X}$	SD	$\overline{X}$	SD
Houghton Mifflin	78.1	(58.91)	118.5	(29.24)
Harcourt, Brace, Jovanovich	12.8	(2.37)	27.0	(23.99)
Ginn	27.4	(18.62)	49.38	(29.68)

Table 2

Comparison of Text Characteristics

of the Three Stories

Story	# Words	# Incoherences	Average Number of Words/Incoherences	Number of Incoherences Questioned During Reading
Cookies	410	4	102.5	1
Sights of the City	511	18.0	28.4	5.0
Animal Art Show	462	33	14.0	4

Table 3

Comparison of Student Performance for:
Decoding, and Explanations of Comprehensibility
of Text from Three First Grade Basal Stories

Story: "Cookies" Number of Pages: 12

	Student	Percent Words Read Missed	Percent Time Student Reported Page Hard to Understand	Percent Time Student Explained "Hard" in Terms of Decoding	Percent Time Student Reported Page Easy to Understand	Percent Time Student Explained "Easy" in Terms of Decodi
End of First Graders	1	2	0	NA	100	0
	2	8	0	NA	100	100
	3	9	0	NA	100	0
	4	11	8	100	92	100
	5	28	0	NA	100	0
	6	37	71	100	29	100
End of Second Graders	7	<1	0	NA	100	0
	8	2	0	NA	100	100

Story: Sights of the City Number of Pages: 12

1	3	0	0	100	0
2	7	0	0	100	100
3	4	0	0	100	0
4	Absent				
5	28	0	0	100	100
6	30	8	8	92	92
7	<1	0	0	100	0
8	<1	8	0	92	92

Story: Animal Art Show Number of Pages: 7

1	4	0	0	100	14
2	7	0	0	100	86
3	2	14.3	0	86	28.6
4	10	43.0	43.0	57	28.6
5	27	0	0	100	0
6	26	20	20	80	80
7	.09	0	0	100	0
8	.07	0	0	100	0

Table 4

Comparison of Student Performance for: Adequate Summaries; Identification of Incoherences; Correct Text Explicit Questions; Opinion; and What Learned from Three Stories

Story: "Cookies"

	Student	Percent Adequate Summaries	Percent Correct Identification of Incoherence	Percent Correct T.E. Ques.	Liked Story: A Whole Lot	A lot	A little	Not at all	What Learned from Story
End of First Graders	1	0	0	80	X				I've got a book like this at hom
	2	25	100	100		X			Don't each too mu cookies.
	3	25	100	80	X				Nothing
	4	42	100	80			X		Not to eat too mu things or you'll real sick.
	5	14	**	**	*				*
	6	0	**	**	*				*
End of Second Graders	7	83	100	100	X				That toad bakes cookies and they and Frog said the might have a ston ache and they hac will power.
	8	35	80	83		X			Never eat too muc things. You migl get sick on candy or cookies.

* = because these students were the lowest performing 1st graders they read only 40% of the story. Therefore, data for these students is not available.

Story: Sights of the City

1	2	20	100	X			Nothing!
2	25	40	100		X		How you see sights!
3	42	40	60		X		Some cities are bigger than others and this one is big because it has lots of places.
4	Absent						
5	8	20	60			X	Listed new words learned.
6	8	20	60		X		Nothing
7	67	100	100	X			Don got on a sight-seeing bus. He saw a harbor, animals, and the airport.
8	35	49	83		X		He went on the sight tour and it was fun and he liked it.

Story: Animal Art Show

1	14	0	40	X			Nothing
2	14	25	60		X		If you make an art and give it to the art thing, you can get 1st place.
3	14	37.5	60	X			Animals made this thing and they won.
4	28.6	25	60			X	Nothing, there's no moral.
5	0	40	50	X			Animals play.
6	0	20	0	X			Nothing.
7	43	50	100	X			Animals won by making a "whatever."
8	18	37	67		X		That they won, I don't know how they did it.

Table 5

Students' Choices for Which Story They Liked Best and Justification at Times 1 & 2

Student	Time	Story: "Cookies"	"Sights of the City"	"Animal Art Show"	Changed	Reason
1	1		x			I liked it when this boy went to the big animal....
	2			x		I liked it, when all of the things fell down
2	1			x		It was a good story - easy to read.
	2	x			+	It was a good story - easy to read.
3	1			x		There's bears and a donkey and stuff and they won a prize...winning a prize is best.
	2			x	-	Because they won a prize.
4	1	Absent				
	2	Absent			NA	
5	1	x				Nice story and [illegible]'s (book) shiney.
	2	x			-	Because we already have cookies--see, cookies on my desk!
6	1	x				Because there was cookies in it. I always eat up all my Grandma and Grandpa's cookies.
	2	x			-	Because it had cookies in it and I like cookies, and toa can talk but frogs can't, and it's like a cartoon.

Table 5 (Continued)

7	1	x				I liked it when Toad baked some cookies and they had will power, and they said. I'd like to see the sights that Dan saw.
	2		x		+	
8	1			x		It was funny. It was easy I liked it.
	2			x		It's funny. The thing the made and then this made wa funny, and they messed it all up, and it was funny.
Votes		6	2	6	43%	Percent reasons tied clearl to the story 57 Percent reasons personal feelings 43

Table 6

Students' Decoding Errors, Reports, and Explanations
for Page Difficulty or Ease
(N = 58 students)

Story: "The Animal Art Show" Number of Pages: 7; 406 instances

Percent Words Read Missed	Reported Pages Hard to Understand (N = 53)	Reported Pages Easy to Understand (N = 353)	Percent Time Students Explained "Hard" in terms of: Decoding	Other	Percent Time Student Explained "Easy" in Terms of: Decoding	Comprehension	IDDC*	Easy	Other	I Don't Know
$\bar{X}$ = 6.05 SD = 7.90	$\bar{X}$ = 12.57 SD = 20.94	$\bar{X}$ = 87.43 SD = 20.94	$\bar{X}$ = 30.00 SD = 41.95	$\bar{X}$ = 46.48 SD = 42.38	$\bar{X}$ = 30.65 SD = 38.00	$\bar{X}$ = 13.03 SD = 22.72	$\bar{X}$ = 9.03 SD = 20.20	$\bar{X}$ = 21.00 SD = 33.44	$\bar{X}$ = 7.41 SD = 20.22	$\bar{X}$ = 18.86 SD = 32.61

Story: "The Beautiful Turtle" Number of Pages: 8; 464 instances

	(N = 60)	(N = 404)								
$\bar{X}$ = 6.43 SD = 7.84	$\bar{X}$ = 12.28 SD = 21.49	$\bar{X}$ = 85.64 SD = 22.96	$\bar{X}$ = 28.62 SD = 38.90	$\bar{X}$ = 53.19 SD = 44.92	$\bar{X}$ = 23.68 SD = 31.77	$\bar{X}$ = 12.68 SD = 22.64	$\bar{X}$ = 13.49 SD = 23.82	$\bar{X}$ = 25.21 SD = 36.59	$\bar{X}$ = 7.49 SD = 20.93	$\bar{X}$ = 17.42 SD = 28.18

Story: "Cookies" Number of Pages: 12; 696 instances

	(N = 69)	(N = 627)								
$\bar{X}$ = 6.47 SD = 7.48	$\bar{X}$ = 9.86 SD = 18.67	$\bar{X}$ = 89.28 SD = 20.45	$\bar{X}$ = 29.25 SD = 39.90	$\bar{X}$ = 52.45 SD = 44.60	$\bar{X}$ = 20.34 SD = 30.98	$\bar{X}$ = 14.07 SD = 21.48	$\bar{X}$ = 12.64 SD = 22.89	$\bar{X}$ = 24.10 SD = 36.00	$\bar{X}$ = 20.90 SD = 34.32	$\bar{X}$ = 20.19 SD = 30.71

*Inadequate demonstration of comprehension.

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Table 7

Students' Performance on Page Summaries: Identification of Incoherence and Text Explicit Questions
(N = 58)

Story: "The Animal Art Show" (406 instances)

Percent Summaries:			Percent Correct:	
Inadequate	Partial	Adequate	Identification of Incoherence	Text Explicit Questions
$\bar{X}$ = 72.41 SD = 23.55	$\bar{X}$ = 22.97 SD = 24.12	$\bar{X}$ = 5.43 SD = 10.51	$\bar{X}$ = 35.36 SD = 18.64	$\bar{X}$ = 60.69 SD = 24.56

Story: "The Beautiful Turtle" (464 instances)

$\bar{X}$ = 54.91 SD = 32.51	$\bar{X}$ = 38.47 SD = 26.26	$\bar{X}$ = 7.67 SD = 15.00	$\bar{X}$ = 67.93 SD = 20.84	$\bar{X}$ = 59.19 SD = 26.41

Story: "Cookies" (696 instances)

$\bar{X}$ = 48.03 SD = 23.14	$\bar{X}$ = 45.38 SD = 26.00	$\bar{X}$ = 6.53 SD = 10.44	$\bar{X}$ = 13.34 SD = 30.72	$\bar{X}$ = 67.76 SD = 21.73

Table 8

Students' Reports of Liking and What Learned from the Stories
(N = 58)

					What Learned		
A whole lot	A lot	A little	Not at all	Story-related	Generalization/ Moral	Unacceptance of Personification	Other
Story: "Animal Art Show"							
23	23	9	3	24	21	2	11
Story: "The Beautiful Turtle"							
25	21	12	0	27	17	5	9
Story: "Cookies"							
25	22	11	0	24	17	4	13

Table 9

Students' First Choice of Stories
Time 1 Time 2; Changes; and Support
(N = 58)

Story:	"Animal Art Show"	"Beautiful turtle"	"Cookies"	%Change Choice Time 1 and Time 2	Reasons: Story Related	Moral	Personal Identification	Other
Time 1	12	17	25					
Time 2	24	9	21	64%	26.0	0	5.0	27
					30.5	2	5.5	26

Table 10

By Level Comparison of First Grade Reading Selections

in the Houghton Mifflin; Harcourt, Brace, Jovanovich; and Ginn Reading Programs

Book	Number of				% Adapted Trade Books	% Adapted Trade Books and Folktales
	Selections	Stories	Poems	Expository, Activity, Picture Essay, or Skills Lessons		
Houghton Mifflin						
Rockets	5	5	0	0	0	0
Surprises	5	5	0	0	0	0
Footprints	7	6	0	1	0	0
Honeycomb	14	10	2	2	50	70
Harcourt, Brace, Jovanovich						
Sun Up	14	14	0	0	0	0
Happy Morning	14	13	1	0	0	0
Magic Afternoon	14	13	1	0	0	0
Sun and Shadow	31	14	8	6	7	7
Together We Go	29	11	6	12	9	45
Ginn						
A Duck's a Duck	13	13	0	0	0	7
Helicopters and Gingerbread	10	10	0	0	0	20
May I Come In	31	28	3	0	11	28
One To Grow On	38	29	9	0	21	24

Table 11

Summary Comparison of First Grade Stories
in
Houghton Mifflin, Harcourt Brace Jovanovich;
Ginn; and Distar Reading Mastery Programs

Program	Selections	Stories	Words	Trade Books	Percentage of Selections Adapted From Trade Book & Folk Tales
Houghton Mifflin	31	26	12,264	16	22
Harcourt, Brace, Jovanovich	102	68	17,164	24	6
Ginn	92	80	20,982	10	16

Figure 1

Final page of "Cookies"

"Yes," said Frog,
"but we have lots and lots
of will power."
"You may keep it all, Frog,"
said Toad.
"I am going home now
to bake a cake."

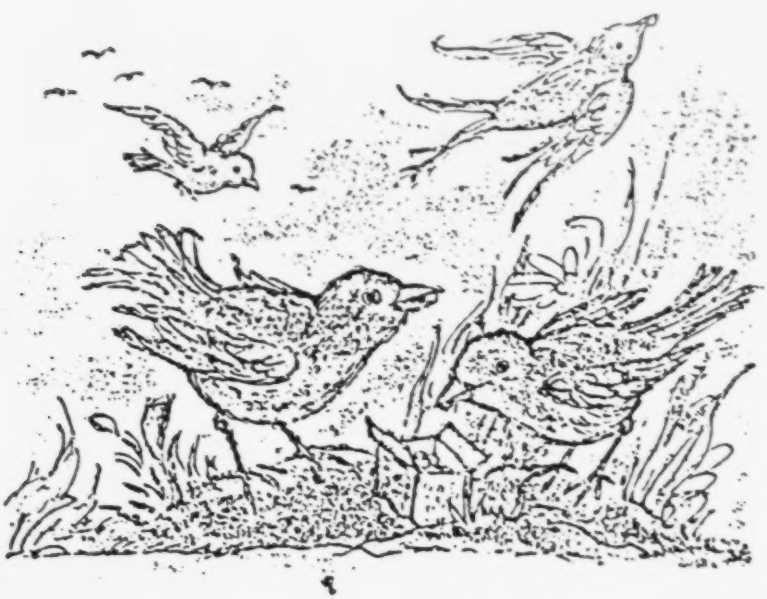
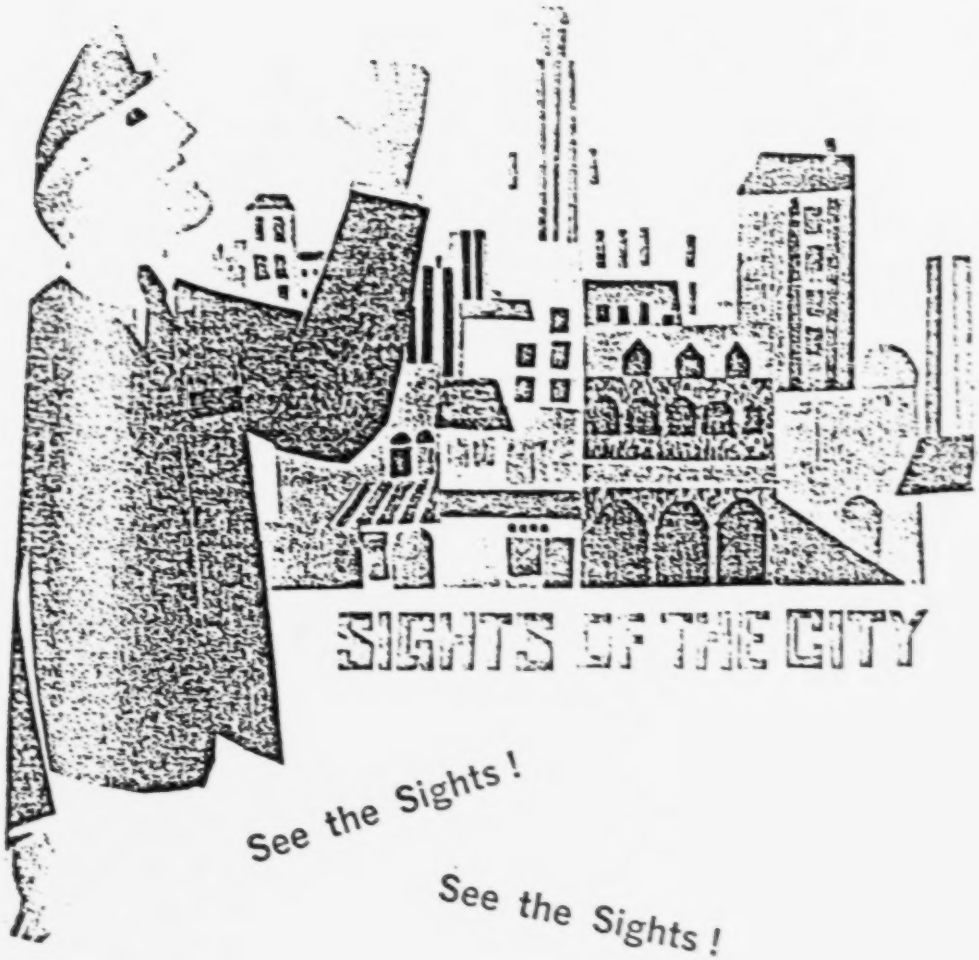


Figure 2

First page of

"Sights of the City"



"See the sights!" called the tall man.

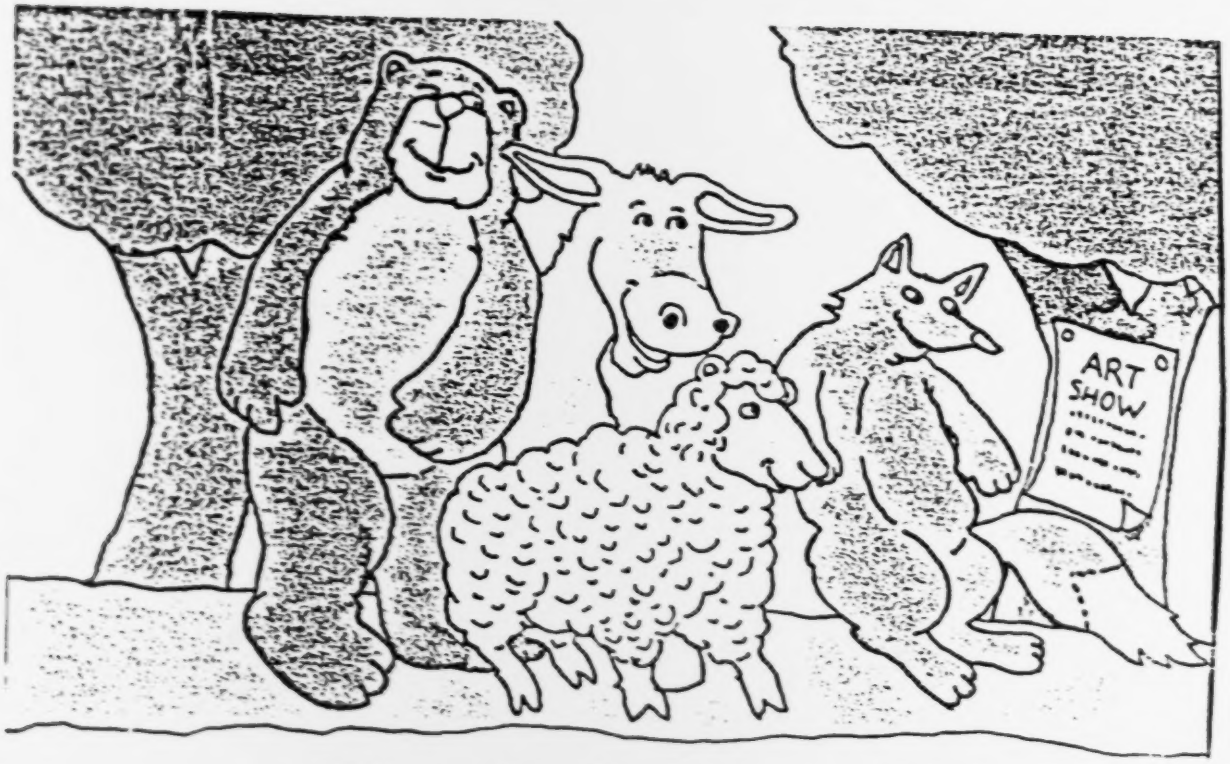
Every day the tall man came to 5th Street.

Every day he called, "See the sights! See the sights!"

Figure 3

First Page of

"Animal Art Show"



The Animal Art Show

Donkey, Sheep, Bear, and Fox were good friends.

They met one day in the park.
Fox said, "Look at this, friends."

"Read it to us," said Sheep.

Fox said, "Art show tomorrow.
Make a work of art.
You can get a prize."